APC
Legendary Reliability™

220V / 230V / 240V

Server and Network Power Solutions

Smart-UPS®

Performance power protection for servers and networks

www.APCturkey.com

Complete Power Protection

Reliability—Availability—Manageability: The three essential requirements when choosing power protection for your systems.

Reliability—The UPS design consistently delivers dependable performance through a combination of form, function and features. Your hardware is protected and your system life extended through features like full-time multi-stage surge suppression and noise filtering, network-grade line conditioning, proactive notification of problems and automatic shutdown during extended outages.

Availability—The UPS provides reliable power minimizing downtime. Availability increases when: the unit can operate through a greater range of input voltage; the batteries are easily accessible and user-serviceable and the unit provides information concerning problems and automatically takes action to keep systems available. Availability is increased by adding accessories which enhance network performance by rebooting hung devices, initiating shutdowns in the event of abnormal environmental conditions and provides notification of these actions.

Manageability—The UPS's control and status are available both in-band and out-of-band, allowing as much control as desired. The degree of manageability is directly related to users' customized parameters and notifications, through hardware and software features. Manageability is critical to the overall performance of the network and attached equipment.

Requiring **Reliability**, **Availability** and **Manageability** ensures that your power protection solution is dependable, accessible and flexible, minimizing downtime, saving time and money and increasing overall customer satisfaction.

Reliability

Line-interactive design delivers unmatched performance and reliability

Innovative line-interactive design uses the DC to AC power inverter "in reverse," like a battery charger, during normal operation providing greater performance and efficiency.

Sine-wave output

APC Smart-UPS sine-wave output provides assurance of compatibility with all loads.
(Does not apply to SU420INET/SU620INET models)

Network-grade line conditioning prevents glitches

Full time EMI/RFI filters prevent line noise from causing data errors. Smart-UPS meets Novell and Microsoft's approval for network protection, without the need for additional external conditioners.

Lightning and surge protection shields hardware

When measured via ANSI/IEEE 587 Category "A" and "B" tests, the suppression performance of the APC Smart-UPS is superior to virtually all separate surge suppressors.

Pre-failure diagnostics

Smart-UPS continuously monitors its health and proactively informs you of the results via Web, SNMP, E-mail or paging.

Automatic self-test

All APC Smart-UPS initiate a self-test at power-on and every 2 weeks, at the push of a button, or pre-determined times using software. This ensures that you will be alerted to degraded batteries before they wear out.

For more Turkish information, visit the web site at *www.APCturkey.com*

Graceful, unattended shutdown

In the event of an extended power outage, an APC Smart-UPS will interface with PowerChute *plus* via the serial port to perform automatic safe shutdown of the attached system. Power failures can occur at night, on weekends, or while the system administrator is out of the building, which makes automatic safe shutdown critical. Smart-UPS provides extensive unattended safe shutdown of many operating systems when the UPS runs out of battery power, including Microsoft Windows 95/98, Windows NT/2000, Novell NetWare, SCO Unix, Red Hat, SuSE, Caldera, and TurboLinux (other OSs available separately). By using PowerChute *plus* software you can manage and diagnose power problems.

- Safely shutdown a single server via serial cable

  The Smart-UPS communications port provides the coordination of a safe shutdown with most popular operating systems by Microsoft, Novell, HP, IBM, Sun, SCO, Linux, and others.

- Safely shut down multiple servers via serial cable

  APC has several solutions to shut down multiple servers. The 2-Port Interface Expander Card (AP9607) provides two additional ports. The 8-Port Interface Expander (AP9207) provides a total of eight ports and can be daisy-chained to provide 15 ports. Both accessories facilitate graceful system shutdown via dependable hardwire connections and allow advanced UPS management. The units are ideal for "server farms" or multiple operating system environments.

- Safely shutdown multiple servers via network connection

  APC PowerChute network shutdown software communicates across the network with Smart-UPS equipped with APC Web/SNMP card to provide reliable, graceful unattended shutdown of multiple computer systems over the network.

Availability

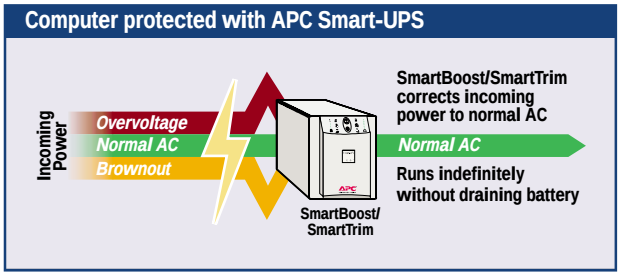
Automatic Voltage Regulation

AVR Boost automatically corrects brownout conditions

Allows you to work through brownouts without unnecessary battery drain. AVR Boost automatically steps up low voltage to safe output levels.

AVR Trim automatically corrects overvoltage conditions

Allows you to work through overvoltages without unnecessary battery drain. AVR Trim automatically steps down high voltage to safe output levels.



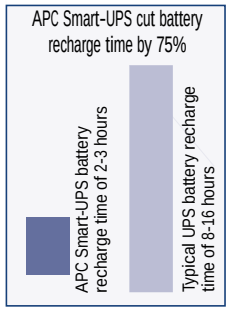
Intelligent Battery Management

CellGuard means longer battery life

Improved reliability results from a precision battery charging system, and automatic true-load battery tests. Redundant overcharge protection contributes to longer battery life. AVR Boost and AVR Trim regulate under- and overvoltages without switching to battery.

Battery Replacement Warning prevents downtime

APC Smart-UPS automatically performs a self-test every two weeks. This ensures you will be alerted to degraded batteries before they wear out. Through software, or the push of a button, you may perform self-tests anytime.


APC Smart-UPS cut battery recharge time by 75%
APC Smart-UPS battery recharge time of 2-3 hours
Typical UPS battery recharge time of 8-16 hours

Faster Recharge Time

APC Smart-UPS battery changing system is microprocessor controlled to precisely charge batteries in less time than legacy UPS systems. This makes your system available more quickly for subsequent power disturbances.

QuickSwap™

The 60 second, user friendly, hot-swappable battery replacement system

Saves the time and expense of returning the UPS to the factory for battery service, and allows safe and easy replacement of batteries while your system is up and running. Replacement battery kits ship in a reusable box for convenient return of exhausted batteries to a recycling center or to APC.

Prevent Downtime

Predict failures

By periodically conducting self-tests and other diagnostics, Smart-UPS can warn you of failures before they happen. For example, Smart-UPS will proactively notify you 6-8 weeks in advance of a battery replacement.

Deliver diagnostic data

Smart-UPS constantly monitors its health and delivers the results via Web, SNMP, E-mail, or paging.

Take Action

The built-in SmartSlot bay gives Smart-UPS the ability to take necessary actions to reboot "hung" devices, giving you availability when you need it most.

- Reboot hung servers and networking equipment remotely using modem (out-of-band) with the Out-of-Band Management card (AP9608).
- Reboot hung servers via Web, SNMP, or Telnet (in band) using the Web/SNMP Management card (AP9606 or AP9603).
- Reboot hung servers and networking equipment in and out-of-band using the MasterSwitch Plus (AP9255 or AP9225EXP).

Accessories Increase Availability

By adding APC accessory cards into the built-in SmartSlot™, you can monitor power conditions and take action. The addition of the accessory cards increases overall system availability by proactively notifying you of conditions that could affect uptime. *(Accessories sold separately and detailed on p. 15.)*

Redundant Switch

Redundant Switch continuously monitors two AC circuits and automatically switches from the primary to the redundant power source, increasing overall system availability. *(See p. 16 for more information.)*

ProtectNet™

ProtectNet increases the availability of your systems by protecting your wiring and cabling from "back-door" surges and spikes, which cause system downtime and equipment damage.

Manageability

Informative LED Display provides status at a glance

Instantly assess the status of your power and the APC Smart-UPS without even pushing a button. Bar meters and status indicators are simple to use and easy to understand. Visible and audible alarms alert you to fault conditions.

Load, Power and Volt Meters keep you in control

The Load Meter* prevents you from exceeding UPS capacity. The Volt Meter* reports utility line voltage and battery capacity, allowing you to gauge how much time you have before batteries are depleted. An alarm sounds when batteries are low, allowing you time to save data and shutdown the system.

**These features are not available on the SU420 INET/620INET models.*

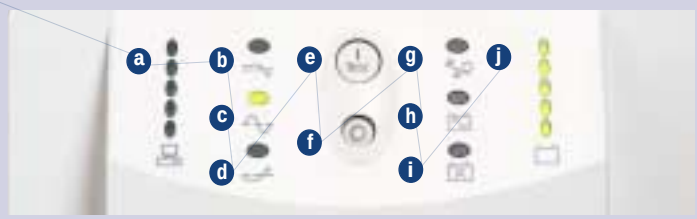
Alarms

Audible alarms alert you to changes in operating environment and battery conditions. Some alarms are software configurable and most can also be suppressed or delayed to eliminate nuisance alarms.

APC Interactive Assistant

This Web-empowered technology enables administrators to complete a variety of tasks via APC's Web site, including troubleshooting potential problems and proactively updating their UPS power management features within PowerChute. It gives the user a link back to APC to aid in diagnosing/ordering/replacing a bad battery, provides upgrade information, and assists the user with warranty registration.

APC Interactive Assistant also presents custom-tailored information to the user based upon variables such as their UPS model and the version of PowerChute running.



a **Load Display*-** Shows the power being drawn by the load and prevents you from exceeding capacity.

b **AVR Trim LED*- LED lights when the UPS is correcting a high utility voltage condition.**

c **On-line LED-** LED lights when the UPS is supplying utility power to the loads.

d **AVR Boost LED*-** LED lights when the UPS is correcting a low utility voltage condition.

e **On/Test Button-** Turns on the UPS and activates the UPS self-test and utility line voltage displays.

f **Off Button-** Turns off the UPS and the load. Specifically designed to prevent accidental shutdowns.

g **Overload LED-** LED lights and alarm sounds when the load connected to the UPS exceeds capacity.

h **On-Battery LED-** LED lights and alarm sounds when the UPS is supplying battery power to the load.

i **Replace Battery LED-** LED lights and alarm sounds when the UPS battery is nearly dead and must be replaced (typically within 30 days.)

j **Battery Charge/Line Voltage Display*-** Displays both present battery charge as a percentage of battery capacity and utility line voltage. Alarm sounds upon low battery condition.

**These features are not available on the SU420INET/620INET models.*

PowerChute *plus* power management software included

Meets the demands of high performance networks and enhances the reliability and manageability of network and web servers.

Browser Manageable

The Smart-UPS is easily manageable through standard browsers on local computers, networked computers or remote systems. (Requires PowerChute Web Device Manager running on a Windows NT/2000 web server on your network. See *www.apcc.com* for a free download.)

E-mail and Pager Alerts

APC Smart-UPS E-mails and/or pages you via PowerChute *plus* alerting you of power problems and allowing you to respond in order to maximise uptime.

Integrates with Server and Enterprise Management

All Smart-UPS are shipped with support for Dell Network/Node Manager, Compaq Insight Manager (Windows NT and Novell NetWare), HP TopTools and IBM NetFinity, and plug-ins for HP Openview, CA Unicenter, and Tivoli Netview.

Built-in SmartSlot gives you the customisable performance you need

APC Smart-UPS are equipped with a built-in SmartSlot* allowing you to implement various UPS Accessory cards to customise and enhance the management of your APC Smart-UPS. APC's series of UPS accessories plug directly into the back of your UPS. When an APC accessory is installed in your UPS, it becomes an integral part of the unit, drawing power from the UPS even when the UPS is in "sleep mode." Optional accessories allow you to remotely reboot individual devices, monitor ambient temperature and humidity and work with Emergency Power-Off (EPO) systems. *(Accessories detailed on page 15)*

*(*Option not available on SU420INET/SU620INET models)*

Includes PowerChute® *plus* software for advanced UPS power management and diagnostics

APC Smart-UPS ship with APC's PowerChute® *plus* UPS power management and diagnostic software to provide network administrators with useful UPS information and flexibility in configuring UPS reaction to power events. By tailoring each UPS to the network environment you can significantly enhance network performance and reliability. Use your APC Smart-UPS in conjunction with PowerChute *plus* for optimal, custom protection. In addition to extensive unattended system shutdown, you get UPS testing/status, remote UPS management and environmental/ power monitoring. (PowerChute *plus* support for Novell NetWare, Windows, Windows 95/98, Windows NT/2000, Windows for Workgroups, SCO Unix, Red Hat, SuSE, Caldera and TurboLinux included. PowerChute *plus* for use with other operating systems sold separately. (Visit our web site at *www.apc.com* for more information).

APC's PowerChute *plus* includes an SNMP Agent (Windows NT and NetWare included with Smart-UPS) and offers integration with Compaq Insight Manager (Windows NT and NetWare only), IBM Netfinity and HP TopTools.

Events Handling allows administrators to plan for and control crisis situations

Users can customize the APC Smart-UPS' reaction to all power events. For each possible power event the user has the option of choosing up to seven items from a list of possible UPS actions. Actions include: Log Event, Notify Administrator, Notify Users, Shut Down Server, Run Command File, Page and Send E-Mail. Customizing UPS actions allows you to plan for and control crisis situations before they cause downtime or threaten data.

Software configurable features

Customize the operation of an APC Smart-UPS to your environment and needs. With PowerChute *plus* software, as well as the Web/SNMP Management Card, you can adjust eleven operating parameters. Settings are stored in the APC Smart-UPS' permanent memory (EEPROM). The following parameters are adjustable:

UPS ID

Users may assign any 8 character settings to assist in UPS identification. For example, UPS ID may be server name or UPS location.

Low transfer

Low transfer voltage may be moved downward to extend brownout range, or upward to protect sensitive equipment.

High transfer

High transfer voltage may be moved lower to protect sensitive equipment, or higher to conserve battery during extended high line voltage conditions.

Sensitivity

Sensitivity to line noise may be adjusted for fuel powered AC generator applications.

Self test

The APC Smart-UPS automatically performs a self-test every two weeks, ensuring proactive detection of a weakening battery. Users can opt for weekly testing, testing at start-up only or no automatic self-test.

Alarm

The audible alarm may be suppressed or delayed to eliminate alarms.

Shutdown delay

The delay between when the shutdown signal is sent from the CPU to UPS and when the UPS shuts down can be adjusted for special applications.

Turn-on delay

Allows multiple APC Smart-UPS on the same power grid or circuit to stagger or sequence their return from shutdown once the utility line returns.

Low battery capacity

The low battery warning may be moved from 2 minutes up to 10 minutes before battery exhaustion. This allows plenty of time for safe shutdown of complex applications.

Minimum battery capacity

When utility line returns after a shutdown, Smart-UPS can ensure that the batteries first recharge to allow for subsequent safe shutdown of file servers and CPUs. For telecom or hub applications APC Smart-UPS can be set to reboot immediately.

PowerChute *plus* features

PowerChute Web Device Manager

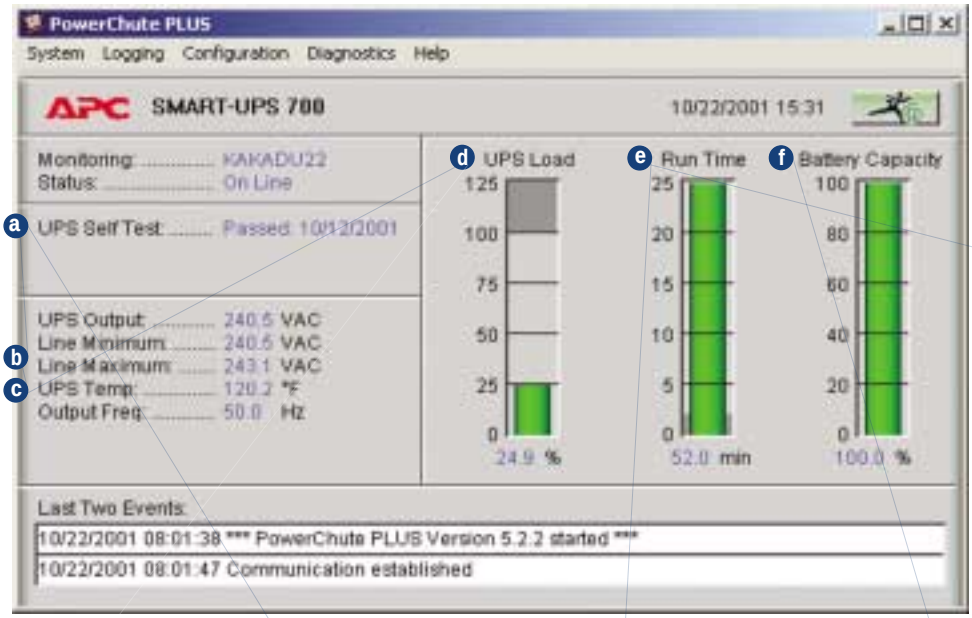
PowerChute Web Device Manager allows UPS monitoring via a Web Browser. Users have access to their Web server UPS information from anywhere on the Internet or Intranet. It is no longer necessary for the administrator to be logged into the network in order to monitor the UPS/power information.

Microsoft BackOffice Compatible

APC's PowerChute® plus earned Microsoft's approval for use with BackOffice. PowerChute plus functions properly in the BackOffice environment and avoids conflicts with Microsoft Windows NT.

Schedule UPS self-tests and shutdowns

Use PowerChute plus to schedule unattended UPS self-



Look across the LAN at any APC Smart-UPS from your workstation and check important data such as UPS operation, power line status and environmental conditions using the real-time graphical display of UPS/power status.

a **UPS self test**- Unattended scheduled self- tests warns of faulty UPS or weak battery.

b **Min./Max. power line voltage**- Useful in determining power quality.

c **UPS temperature*-** Monitoring for proper UPS temperature to extend battery life.

d **Battery runtime**- Minutes of battery time left for system use and subsequent outages.

e **Utility line voltage**- Power quality display for fast problem diagnosis.

f **% UPS load**- Load capacity display to ensure correct UPS load.

*Not available on SU420NET/620NET models

SNMP compatibility for enterprise UPS power management

SNMP Ready for Servers

The APC Smart-UPS series supports the Simple Network Management Protocol (SNMP) via APC's PowerNet SNMP family of products. PowerNet SNMP products deliver warnings regarding power events and UPS status to any Network Management Station whether the UPS is located 20 feet away or 2000 miles away.

APC's SNMP Agent, included with PowerChute *plus*, allows you to monitor and control the APC UPSs along your entire network data path.

This same worldwide power management capability for Smart-UPS protecting servers or inter-networking equipment is available via the Web/SNMP Management Card (sold separately).

USB Compatible

The new APC Smart-UPS 1000 and 1500 are compatible with Windows 2000's built-in USB and serial UPS support out-of-the-box. Additionally, full PowerChute *plus* compatibility is obtained via either of the built-in ports (USB or serial). As a charter member of the USB Implementers Forum, APC played a significant role in defining USB-specifications for power devices.

PowerNet® SNMP Manager maximizes your management capabilities by presenting all UPS information in an intuitive graphical display. (Sold separately. Visit our web site at www.apcc.com *for more information.)*

tests, server shutdowns, and UPS runtime calibrations. SmartScheduling™ (not available for all operating systems) provides a more powerful and easier to use interface for scheduling these actions.

DMI Compliant

PowerChute plus is now manageable via the DMI protocol permitting seamless integration with DMI-based server management packages such as Intel's LANDesk Server Manager.

Application Shutdown

In the event of a power outage, PowerChute plus will save open files and gracefully closes open applications. Applications supported include Microsoft Office, PerfectOffice and Lotus SmartSuite.

Certification by operating system and application vendors

Since APC UPS software is tested and certified for operating systems such as Microsoft Windows NT, Novell Netware, IBM OS/2, Solaris, HP/UX, AIX and SCO Unixware, you are ensured of operating system vendor support, as well as compatible operation with APC software.

Lotus Notes server shutdown is included with PowerChute plus *for each platform Lotus Notes supports.*

All trademarks are the property of their owners

For more Turkish information, visit the web site at www.APCturkey.com

Smart-UPS® Tower Series

Superior design, high volume manufacturing and continuous quality enhancement allow APC Smart-UPS to feature unsurpassed reliability.

NEW Smart-UPS 1000 and 1500
now USB compatible

XIOtech Partners with APC to Provide High Availability Storage Solutions

XIOtech manufactures a centralised, intelligent shared storage subsystem touted by industry experts as 'SAN (storage area networking) in a box'. We call it the Magnitude and it is capable of processing speeds in excess of 90,000 I/Os a second, which is 10 times faster than traditional enterprise RAID systems. Customers who purchase these products require rapid and continuous access to data.

Data access is critical to our customers. Our customers look to us to solve any challenges that might cause them to lose access to their data, including data path failure, drive failure, corrupt data tables, user error, adding storage, zero-backup window and power problems. We can't assume anything. We recognise that a corporation's data is the lifeblood of the company. Losing data means losing crucial competitive advantage.

Since power problems are one of the leading causes of downtime, we decided from the beginning to include the APC Smart-UPS® 2200 as part of the standard configuration of our Magnitude product. As an award-winning REDI (Remarkable Efficient Device I/O) Storage Architecture device, the Magnitude allows users to connect their most critical systems to a high-availability, centralised storage sub-system. We have users accessing multiple terabytes of data from NT and NetWare servers.

Today, as many as eight Intel servers can all share the same storage. In fact, this quarter we will announce connectivity support for hundreds of servers connected to the same storage subsystem, all powered by the APC Smart-UPS. We have installations in large financial organisations, pre-press companies, education, government, and hospitals, and they all rely on APC.

Dan McCormick
Director of Product Management
XIOtech

Smart-UPS 5000 for high-powered and multi-server environments

Smart-UPS 3000 and 2200 for minicomputers, multiple servers and telecom equipment (SU3000 has expandable runtime via 1 SU48BP battery pack)

Smart-UPS 1500 and 1000 for departmental servers and UNIX systems

Smart-UPS 700 for work group servers and UNIX systems

Smart-UPS 620 and 420 for entry-level departmental LAN office servers and small office/home office servers

APC Smart-UPS ships with PowerChute plus software for Windows NT/2000, Novell NetWare, Windows 95/98, SCO Unixware, SCO OpenServer, and Linux. Includes PowerNet SNMP Agent Plug-in for Compaq Insight Manager, HP TopTools, and IBM NetFinity Manager (Windows NT and NetWare platforms.)

For more Turkish information, visit the web site at www.APCturkey.com

Management Peripherals for Smart-UPS

Customise your power protection solution with UPS Accessories* from APC

Web/SNMP Management Card

Reboot hung servers via Web, SNMP, or Telnet

From your Network Management Station you may use the 10Base-T Ethernet Web/SNMP Management Card (AP9606) and/or Token Ring (AP9603) SNMP Card. Perform remote UPS shutdown, reboot, and other management and diagnostic functions.

Integrate smoke or halon alarms, telephone switches and other dry contact closures

Add security to your UPS system with the Relay I/O Card (AP9610).

Monitor temperature, humidity and rack security

Smoke alarms and halon alarms can also be monitored with the Environmental Monitoring Card (AP9612TH) through the PowerChute plus, PowerNet SNMP or the Out-of-band Management Card interface. The alarm switch kit (AP9513) is designed to monitor and notify users (when used in conjunction with AP9612TH and the NetShelter® rack enclosure) if the NetShelter door has been breached.

Extended UPS monitoring

The Isolated Serial Extension Cable (ISEC) is designed to provide bulletproof monitoring of an APC UPS for extended distances up to100 meters (AP9825).

Isolated Serial Extension Cable

Reboot hung servers and networking equipment remotely via modem

The Out-of-band Management Card (AP9608) provides complete UPS information, paging on power problems and remote safe reboot of servers via user supplied modem.

Safely shutdown up to three servers

The 2-Port Interface Expander Card (AP9607) provides two additional ports to facilitate graceful system shutdown via dependable hardwire connections and allows advanced UPS management. The unit is ideal for "server farms" or multiple operating system environments, since all three servers can be running different OSs.

Shutdown multiple servers from one UPS

Connect up to 8 completely OS-independent servers to a single UPS with Share-UPS™ (AP9207) 8-Port interface expander (15 servers with 2 Share-UPS). Share-UPS integrates with PowerChute plus software. Each server runs its own copy of PowerChute plus software, for monitoring and power management of the UPS.

Share-UPS 8 port interface expander

Integrate multiple accessories

The Triple Expansion Chassis (AP9604) is an external, 1U, 19" rack-mountable device that allows integration of additional UPS slot accessories with a Smart-UPS, Matrix, or Symmetra Power Array. Triple Expansion Chassis can be used in a rack environment or as a stand-alone device that allows you to add up to three (3) slot cards to UPSs that have an existing slot already in use.

Triple Expansion Chassis

APC MasterSwitch Power Controller

MasterSwitch™ remote reboot device

The MasterSwitch (AP9210i) network power controller can easily reboot remote servers, internetworking equipment, or banks of modems to prevent on-site service calls. The perfect complement to your High Availability solution, MasterSwitch gives you power distribution and complete, remote control of eight independent power channels to put an end to the frustration of locked-up servers and wasted management time.

APC Remote Power-off Device

Remote Power-off Device

The APC Remote Power-off Device (RPO) allows data center managers to turn off APC UPS output with a remote switch. When used in conjunction with an Emergency Power-Off (EPO) system, the RPO can turn off equipment in an emergency. (AP9830)

Out-of-band Management Card (AP9608)

Relay I/O Card (AP9610)

2-port Interface Expander Card (AP9607)

Environmental Monitoring Card (AP9612TH)

*(*Note: APC accessory cards are designed to work with APC UPS products that have a SmartSlot bay. The SU420INET and SU620INET products do not have a SmartSlot bay.)*

For more Turkish information, visit the web site at www.APCturkey.com

Global Service Programs

Installation Service

Quick-Start plan

Highest level of service combines **Start-up Service** and next business day **On-site support service**

- 24 x 7 telephone technical support with 1 hour response
- 1 year extension **(#WQSPX1-T_)** or 3 year warranty extension **(#WQSPX3-T_)**

Start-up service

- Part Number (#**WISTL-T_)**
- APC-certified quality engineer verifies proper wiring of APC hardware
- Start up unit and perform comprehensive diagnosis and self-tests
- Attach appropriate loads to your APC UPS
- Includes all parts, labor and travel expenses
- Train your support staff on the proper use of the unit

Maintenance Service

On-site support service

- Next business day on-site repair service
- **Power Plan extended warranty**
  1 year extension **(#WSVNDX1-T_)** or 3 year extension **(#WSVNDX3-T_)**
- Includes all parts, internal batteries (delivered next business day) labor and travel expenses
- 24 x 7 telephone technical support with 1 hour response

Power Plan extended warranty

- Extends product's standard warranty by 1 year **(#WXTDX1-T_)** or 3 years **(#WXTDX3-T_)**
- All parts and internal batteries are covered, all delivered to your site by next business day
- Shipping, to and from APC, is paid by APC
- 24 x 7 telephone technical support with 1 hour response

All service program pricing levels are based on product "T" level - please refer to product specification pages for the correct "T" level of your product. Your APC representative can provide comprehensive pricing and program specifications.

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For more Turkish information, visit the web site at *www.APCturkey.com*